

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1.-15. Cancelled

16. (Previously presented) A wireless communication system comprising a cluster of base stations each defining cells, the base stations having sectorized antennae defining three generally hexagonal sectors within the cell, the sectors deployed according to a honeycomb pattern in a mutually interlocking arrangement and a frequency reuse pattern in which each frequency set occurs twice in a cluster of four cells.

17. (Original) The wireless communication system of claim 16, wherein each cell in the cluster is assigned a group of frequency sets that is unique within the cluster.

18. (Original) The wireless communication system of claim 16, wherein the sectorized antennae have beamwidths of fifty to seventy degrees.

19. (Original) The wireless communication system of claim 16, wherein the wireless communication system has a frequency reuse factor of $K=2$.

20. (Original) The wireless communication system of claim 16, wherein frequency resources of the wireless communications system include at least six frequency sets and, for any clustered four adjacent base stations, each frequency set is allocated to at least two sectors of the four base stations.

21. (Previously presented) A wireless communications system comprising:
a cluster of four base stations, each base station having sectorized antennae defining three sectors within a respective cell,

wherein frequency resources of the wireless communications system include six frequency sets and each frequency set is allocated to two sectors within the cluster of four base stations.

22. (Original) The wireless communications system of claim 21, wherein each cell in the cluster is assigned a group of frequency sets that is unique within the cluster.

23. (Original) The wireless communications system of claim 21, wherein the frequency resources are allocated to provide at least one other sector between the two sectors that share a frequency set.

24. (Currently amended) A wireless communication system comprising:
a plurality of base stations, each having three narrow beam trisector cell (NBTC) directional antennae, and deployed according to a mutually interlocking arrangement,
wherein a first set of base stations provided in a first tier are NBTC Type I base stations ~~that are separated from one another by a distance of $1.5R$~~ , and a second set of base stations provided in a second tier, adjacent to the first tier, are NBTC Type II base stations ~~that are separated from one another by a distance of $1.5R$~~ .

25. (Original) The wireless communication system of claim 24, wherein frequency resources of the wireless communications system include at least six frequency sets and one frequency set is allocated to each sector.

26. (Original) The wireless communication system of claim 25, wherein adjacent base stations of similar NBTC Type have at least two sectors with the same frequency set.

27. (Original) The wireless communication system of claim 25, wherein adjacent base stations of differing NBTC Type have at least one sector with the same frequency set.

28. (Original) The wireless communication system of claim 16, wherein each frequency set is reused a second time by a sector in an adjacent cell.

29. (Original) The wireless communications system of claim 21, wherein each frequency set is reused a second time by a sector in an adjacent cell.

30. (Original) A wireless communication system, comprising:

a plurality of frequency sets;

a plurality of cell clusters, each cell cluster consisting of four cells, each cell consisting of three sectors, each sector having one of the plurality of frequency sets assigned thereto; and

wherein the plurality of frequency sets are assigned to each cell cluster to create a frequency reuse factor of two.

31. (Original) The wireless communication system of claim 30, wherein the plurality of frequency sets consists of six frequency sets.

32. (Original) The wireless communication system of claim 30, wherein each of the plurality of frequency sets is assigned to two sectors within each cell cluster.

33. (Original) The wireless communication system of claim 32, wherein the two sectors within each cell cluster having the same assigned frequency set are separated by a third sector having a different assigned frequency set.

34. (New) A communication system, comprising:

a plurality of clusters, each cluster including four cell sites, each cell site having three sectors,

each cell site having a frequency set comprising half of a spectrum allotted to the communication system, wherein a portion of each frequency set is assigned to each sector in the cell site;

wherein the cluster has a frequency reuse factor of two; and

wherein a distance from a first cell site in the cluster to a second cell site using the same frequency set in every adjacent cluster is approximately 2.6 times a radius of the first cell site.

35. (New) A cluster of base stations for wireless communications over a geographic area, comprising:

- a first base station having three sectors defining a first cell;

- a second base station having three sectors defining a second cell;

- a third base station having three sectors defining a third cell;

- a fourth base station having three sectors defining a fourth cell;

wherein each cell is assigned a frequency set comprising one half a total frequency spectrum allotted to the cluster.